

Air Cleaner

(Model 50-860)



Record this information for future reference.

SERIAL NO. _____

DATE OF PURCHASE _____

See Table of Contents for location of Identification Plate.

Dated 5-10-98

PART NO. 410-09-651-0001
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TABLE OF CONTENTS

SAFETY RULES	3
SAFETY RULES FOR AIR CLEANERS	4
INTRODUCTION	5
UNPACKING	5
ASSEMBLY INSTRUCTIONS	6
Using The Air Cleaner On A Bench Or Floor Surface	6
Mounting The Air Cleaner To A Ceiling Or Overhead Support	7
CONNECTING AIR CLEANER TO POWER SOURCE	8
Power Connections	8
Motor Specifications	8
Grounding Instructions	8
EXTENSION CORDS	9
ON/OFF SWITCH	9
OPERATIONS	9
MAINTENANCE	
Changing And Cleaning Filters	12
IDENTIFICATION PLATE LOCATION	12
ACCESSORIES	12



Delta Building Trades and Home Shop Machinery Two Year Limited Warranty

Delta will repair or replace, at its expense and at its option, any Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta Service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.

IMPORTANT SAFETY RULES

As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine NOT be modified and/or used for any application other than that for which it was designed. If you have any questions relative to its application, DO NOT use the machine until you have first contacted Delta Machinery and we have advised you.

Technical Service Manager
Delta Machinery
4825 Highway 45 North
P.O. Box 2468
Jackson, TN 38302-2468
(IN CANADA: 505 SOUTHGATE DRIVE, GUELPH, ONTARIO N1H 6M7)

WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

1. FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL. Learn the tool's application and limitations as well as the specific hazards peculiar to it.

2. KEEP GUARDS IN PLACE and in working order.

3. ALWAYS WEAR EYE PROTECTION.

4. GROUND ALL TOOLS. If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.

5. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

6. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

7. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.

8. KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept a safe distance from work area.

9. MAKE WORKSHOP CHILD PROOF with padlocks, master switches, or by removing starter keys.

10. DON'T FORCE TOOL. It will do the job better and be safer at the rate for which it was designed.

11. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.

12. WEAR PROPER APPAREL. No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

13. ALWAYS USE SAFETY GLASSES. Wear safety glasses (must comply with ANSI Z87.1). Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty.

14. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.

15. DON'T OVERREACH. Keep proper footing and balance at all times.

16. MAINTAIN TOOLS IN TOP CONDITION. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

17. DISCONNECT TOOLS before servicing and when changing accessories such as blades, bits, cutters, etc.

18. USE RECOMMENDED ACCESSORIES. The use of accessories and attachments not recommended by Delta may cause hazards or risk of injury to persons.

19. AVOID ACCIDENTAL STARTING. Make sure switch is in OFF position before plugging in power cord.

20. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

21. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

22. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

23. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

24. DRUGS, ALCOHOL, MEDICATION. Do not operate tool while under the influence of drugs, alcohol or any medication.

25. MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY while motor is being mounted, connected or reconnected.

26. WARNING: The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use wood dust collection systems whenever possible.

SAFETY RULES FOR AIR CLEANERS

1. FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL. Learn the tool's application and limitations as well as the specific hazards peculiar to it.

2. DO NOT ATTEMPT TO REMOVE OR REPLACE THE FILTER(S) WHILE THE MACHINE IS IN OPERATION. MAKE CERTAIN AIR CLEANER IS DISCONNECTED FROM THE POWER SOURCE.

3. DO NOT OPERATE THE AIR CLEANER WITHOUT THE FILTER IN PLACE TO AVOID EXPOSURE TO ROTATING PARTS AND OVERLOADING THE MOTOR.

4. THE USE of filters and attachments not recommended by Delta may result in product damage or the risk of personal injury.

5. When suspending the Air Cleaner from the ceiling, MAKE CERTAIN the hardware is securely anchored into a wood structure. Always keep a minimum of 7 feet between bottom of Air Cleaner and the floor surface to allow for adequate head clearance. Also, use only properly sized chain to prevent the tool from falling.

6. TO REDUCE THE RISK OF ELECTRICAL SHOCK, do not expose to water or rain, and do not lift the Air Cleaner by the power cord. DO NOT use the power cord as a hanging device.

7. When used in the portable application, MAKE CERTAIN the Air Cleaner is adequately supported, or securely clamped to the work surface to eliminate any potential for movement or damage from falling.

8. ALWAYS WEAR ADEQUATE EYE PROTECTION.

9. WHEN NOT IN USE, BE CERTAIN TO STORE AIR CLEANER IN A SAFE LOCATION TO ELIMINATE THE POTENTIAL OF DAMAGE TO THE POWER CORD OR TRIPPING HAZARDS.

10. MAKE WORKSHOP CHILDPROOF by unplugging tools from power source, using padlocks, or by using a master switch.

11. MAINTAIN TOOLS IN TOP CONDITION. Keep filters clean for optimum performance. Follow instructions for changing and cleaning filters.

12. DANGER: DO NOT use this machine to filter any metal dust. Combining wood and metal dust can create an explosive hazard. This Air Cleaner is intended to be used to filter non-explosive atmospheres only.

13. IF YOU ARE NOT thoroughly familiar with the operation of the Air Cleaner, obtain advice from your supervisor, instructor or other qualified person.

14. WARNING: DO NOT operate your Air Cleaner until it is completely assembled and installed according to the instruction manual.

15. PLACE POWER CORD IN A SAFE LOCATION TO ELIMINATE TRIPPING HAZARDS.

16. USE FACE OR DUST MASK AND EYE PROTECTION. WARNING: The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well-ventilated areas and provide for proper dust removal.

17. WARNING: TO AVOID A POTENTIALLY DANGEROUS SITUATION, DO NOT USE AIR CLEANER TO DISSIPATE FUMES OR SMOKE. This Air Cleaner is intended for use in non-explosive, non-metallic atmospheres where only dry airborne dust is present.

18. GROUND the Air Cleaner per National Electric Code (N.E.C.) requirements

19. SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct other users.

INTRODUCTION

Model No. 50-860 Delta Air Cleaner is specifically designed to quietly circulate and filter non-metallic dust which is generated throughout the work area. The Air Cleaner is furnished with two filters: a disposable outer filter which filters out 98% of particles five microns in size; and the secondary filter will capture 85% of dust particles of one micron in size (one micron = one millionth of a meter). Breathing microscopic particles can be a potential health hazard; therefore, filtering out microscopic dust particles of the mentioned sizes will offer a cleaner and safer environment. This Air Cleaner will filter the air in a room measuring 20 x 20 x 8 sixteen times an hour. If desired, multiple units can be used to filter larger areas. The Air Cleaner is virtually maintenance free; an occasional cleaning and/or replacement of filters is the only maintenance required.

UNPACKING

The Air Cleaner is shipped complete in one shipping container. Carefully unpack the Air Cleaner and all loose items from the shipping container. **WARNING: DO NOT LIFT THE AIR CLEANER BY POWER CORD.** Fig. 2 illustrates the contents of the container.

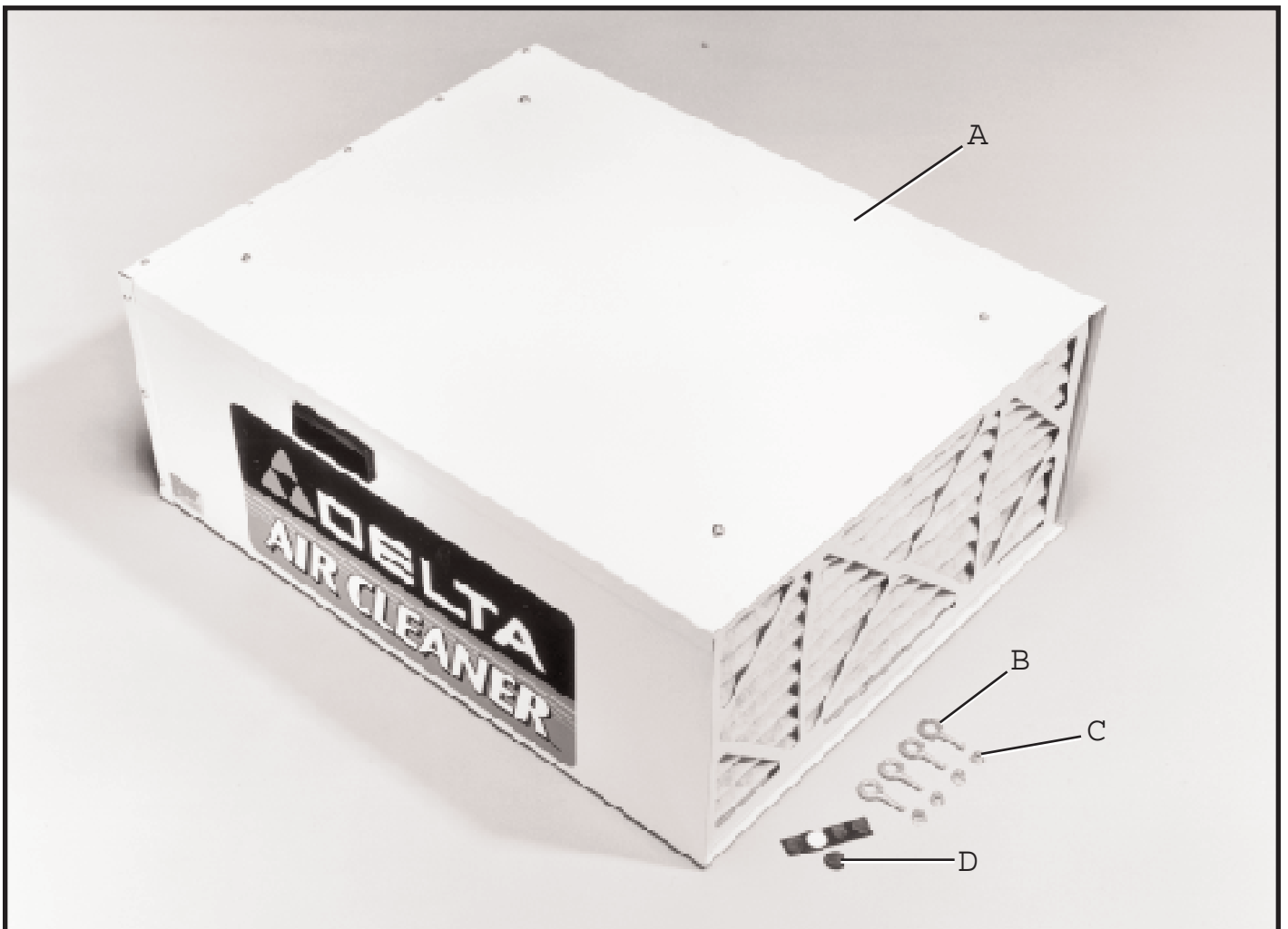


Fig. 2

- A - Air cleaner
- B - Four one-inch eye-bolts
- C - Four 1/4" -20 flange nuts
- D - Four rubber feet

ASSEMBLY INSTRUCTIONS

The Air Cleaner requires very little assembly; therefore, determine in which position the Air Cleaner will be used - on the floor, bench or overhead. If the Air Cleaner will be used as a mobile unit, proceed to USING THE AIR CLEANER ON A BENCH OR FLOOR SURFACE section. If ceiling mounting is desired, proceed to section MOUNTING THE AIR CLEANER TO A CEILING OR OVERHEAD SUPPORT.

IMPORTANT: When determining a location to mount the air cleaner, the unit will operate more efficiently when the air flow is unrestricted. Do not locate the unit in a corner or near any heating or cooling vents.

USING THE AIR CLEANER ON A BENCH OR FLOOR SURFACE

1. Locate (4) self-adhesive rubber feet (A) Fig. 3, supplied with the unit. Carefully place Air Cleaner on a firm supporting surface so there is access to the bottom of the cabinet as shown in Fig. 3. Apply one self-adhesive rubber pad (A) Fig. 3, to bottom at each corner of air cleaner cabinet. The rubber feet will help eliminate vibration and the possibility of the air cleaner walking across the work or floor surface.

For operator safety, we suggest that the unit be clamped down when used on a work bench or positioned on sawhorses.

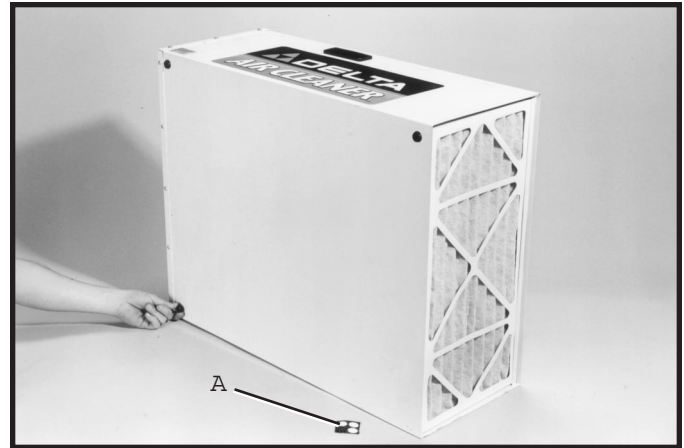


Fig. 3

2. There are two convenient lifting handles located on each side of the cabinet as shown in Fig. 4, to assist in carrying the unit from one place to another. To avoid damage to the air filters, carry the air cleaner with the filters positioned away from your body. **CAUTION: THIS TOOL WEIGHS APPROXIMATELY 50 POUNDS.**



Fig. 4

MOUNTING THE AIR CLEANER TO THE CEILING OR OVERHEAD SUPPORT

WARNING: THIS TOOL WEIGHS APPROXIMATELY 50 POUNDS. MAKE CERTAIN THE UNIT IS SECURELY SUPPORTED WHEN MOUNTING TO A CEILING OR OVERHEAD SUPPORT.

1. Locate (4) one inch eye-bolts, and (4) 1/4-20 flange nuts supplied with the unit.
2. Remove four screws, one of which is shown at (C) Fig. 5, from the top of air cleaner (D).
3. Thread one flange nut (E) Fig. 5, approximately half-way onto each eye-bolt (F) supplied, as shown.
4. Thread each eye-bolt (F) Fig. 5, into each of the four holes where screws (C) were removed in STEP 2.
5. Fig. 6, illustrates the four eye-bolts (F) attached to top of air cleaner. NOTE: To adjust the height of the air cleaner, loosen flange nuts (E) and rotate eye-bolts as necessary. Make certain the flange nuts (E) Fig. 6, are tightened down against the surface of the air cleaner after height adjustments are made.

When suspending the air cleaner from the ceiling or other overhead support, make certain the supporting hardware (not supplied) is securely anchored into a wooden supporting structure as shown in Fig. 7.

WARNING: NEVER SECURE MOUNTING HARDWARE TO DRY WALL, DROP CEILING TILE/FRAME, OR NON-STRUCTURAL MEMBERS.

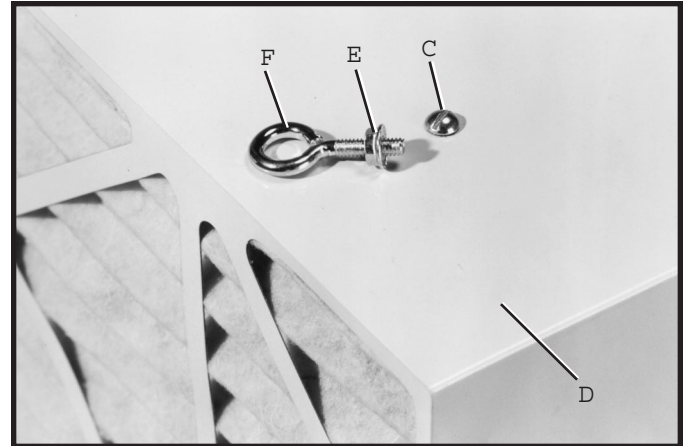


Fig. 5



Fig. 6



Fig. 7

WARNING: Keep a minimum of seven feet between bottom of air cleaner and the floor surface.

DO NOT use rope, cable or power cord to suspend the unit from the ceiling. We recommend that a chain should be used and rated for a minimum of a 100 lb. working load to firmly support the air cleaner. IMPORTANT: When determining a location to mount the unit, the air cleaner will operate more efficiently when the air flow is unrestricted. Do not locate the unit in a corner or near any heating or cooling vents.

CONNECTING AIR CLEANER TO POWER SOURCE

POWER CONNECTIONS

A separate electrical circuit should be used for your tools. This circuit should not be less than #12 wire and should be protected with a 20 Amp fuse. Have a certified electrician replace or repair a worn cord immediately. Before connecting the motor to a power line, make sure the switch is in the OFF position and be sure that the electric current is of the same characteristics as stamped on the motor nameplate. Running on low voltage will damage the motor.

MOTOR SPECIFICATIONS

Your Air Cleaner is wired for 110-120 volt, 60 Hz alternating current. Before connecting the Air Cleaner to the power source, make sure the switch is in the OFF position. The 1050 RPM motor quietly circulates 850 cubic feet of air per minute.

GROUNDING INSTRUCTIONS

CAUTION: THIS TOOL MUST BE GROUNDED WHILE IN USE
TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-hole receptacles that accept the tool's plug, as shown in Fig. 8.

Repair or replace damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet and a plug that looks like the one shown in Fig. 8. A temporary adapter, which looks like the adapter illustrated in Fig. 9, may be used to connect this plug to a 2-pole receptacle, as shown in Fig. 9, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. THIS ADAPTER IS NOT APPLICABLE IN CANADA. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground, such as a properly grounded outlet box, as shown in Fig. 9.

CAUTION: IN ALL CASES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE HAVE A CERTIFIED ELECTRICIAN CHECK THE RECEPTACLE.

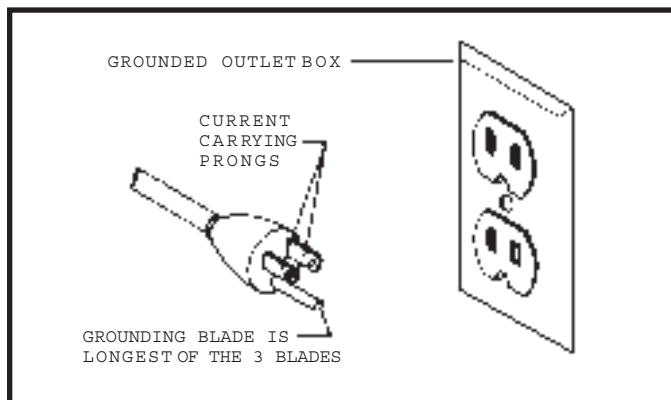


Fig. 8

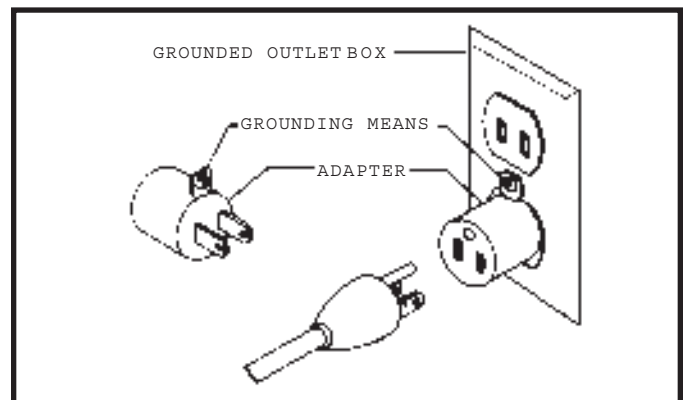


Fig. 9

EXTENSION CORDS

Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and a 3-pole receptacle which will accept the tool s plug. When using an extension cord, be sure to use one heavy enough to carry the current of the air cleaner. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. 10 shows the correct gage to use depending on the cord length. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

TOTAL LENGTH OF CORD IN FEET	GAGE OF EXTENSION CORD TO USE
0 - 25	18 AW G
26 - 50	16 AW G
51 - 100	14 AW G
101 - 150	12 AW G

Fig. 10

ON/OFF SWITCH

The Air Cleaner is equipped with an in-line rocker switch (M) Fig.11, located on the power cord (N). To start or stop the motor, press downward on the rocker switch. NOTE: The switch has markings on the side to determine the on/off position. We suggest that when finished with the air cleaner, the switch be turned off rather than unplugging the unit.

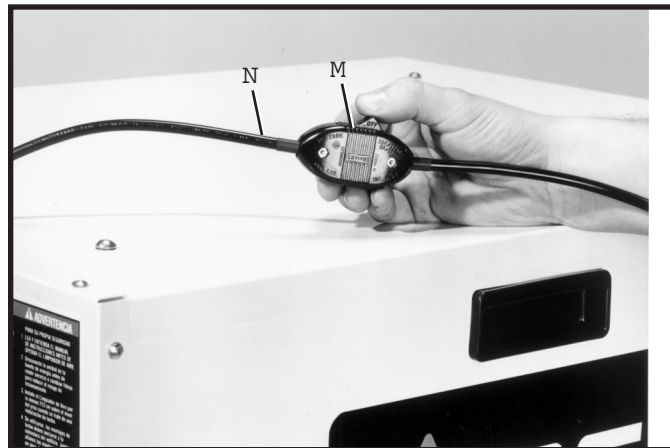


Fig. 11

OPERATIONS

- NOTE: The air cleaner may produce a slight odor for the first couple hours of operation due to the protective coating which is applied to internal components. This odor will dissipate and should be disregarded. IMPORTANT: Never operate the air cleaner without air filters in place.
- Fig. 12 illustrates the air cleaner as it can be used in bench-top sanding applications.

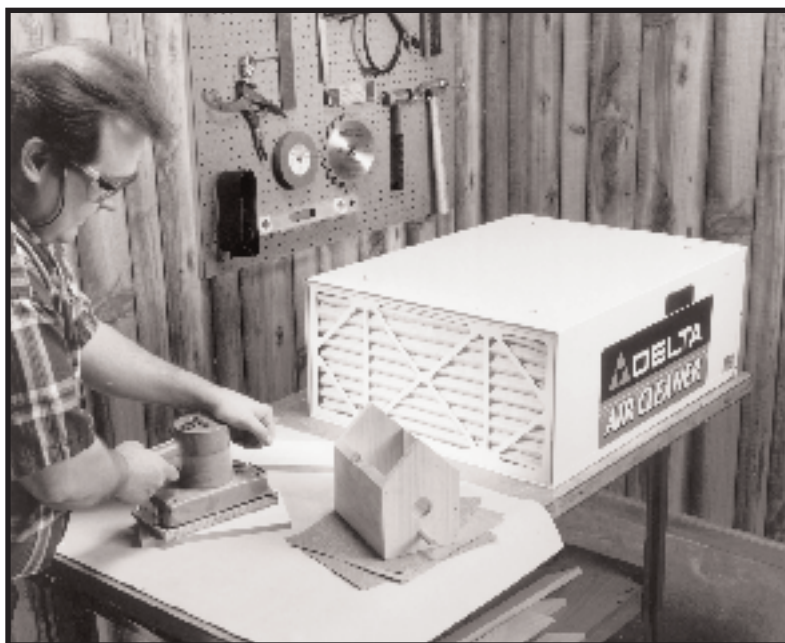


Fig. 12



Fig. 13



Fig. 14

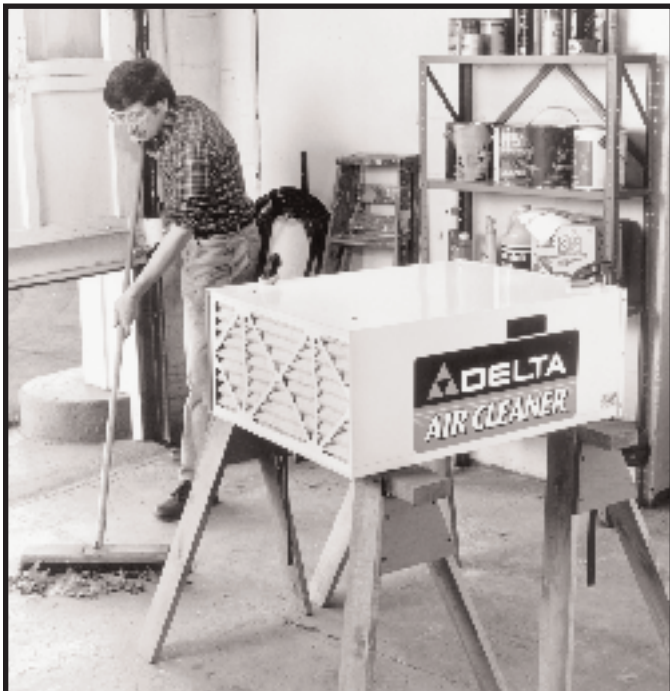


Fig. 15

3 Fig. 13 illustrates the air cleaner as can be used in circular saw applications.

4 Figs. 14 and 15 illustrate the air cleaner as can be used in dry wall and basement cleaning applications. CAUTION: We recommend that the air cleaner be clamped, as shown, if using sawhorses as a supporting surface.

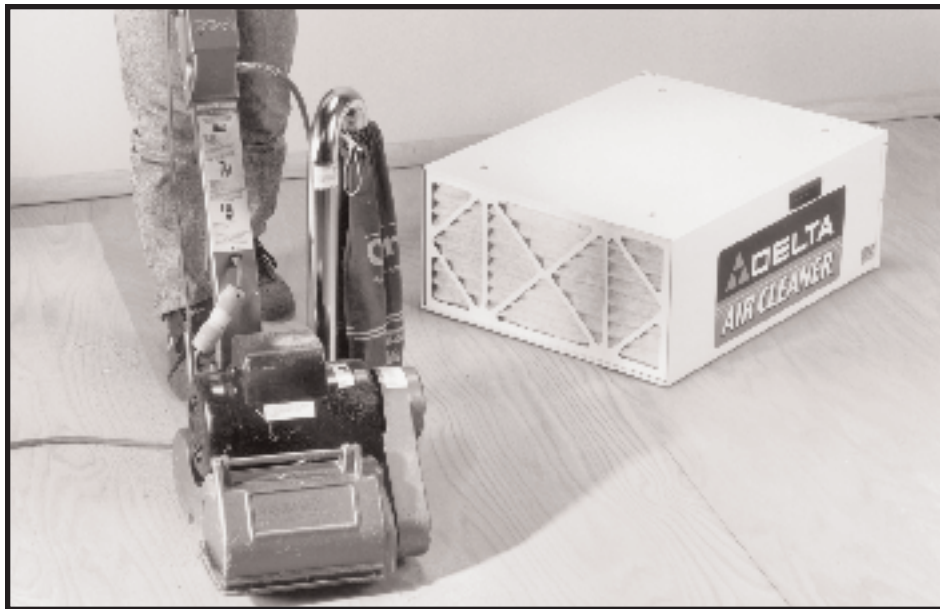


Fig. 16

5. Fig. 16, illustrates the air cleaner being used in a floor sanding application.



Fig. 17

6. Fig. 17, illustrates the air cleaner suspended from wooden ceiling supports for overhead operation. CAUTION: ALWAYS MAINTAIN AT LEAST A 7' CLEARANCE BETWEEN THE BOTTOM OF THE AIR CLEANER AND THE FLOOR SURFACE FOR HEAD CLEARANCE/PROTECTION.

When suspending the air cleaner from the ceiling or other overhead support, make certain the supporting hardware (not supplied) is securely anchored into a wooden supporting structure as shown in Fig. 17.

WARNING: NEVER SECURE MOUNTING HARDWARE TO DRY WALL, DROP CEILING TILE/FRAME, OR NON-STRUCTURAL MEMBERS.

MAINTENANCE

CHANGING AND CLEANING FILTERS

1. To remove the outer first stage filter (H) Figs. 18 and 19, lift and pull out the bottom of the filter as shown.
2. Remove inner bag filter (J) Fig. 19, in the same manner.
3. The first stage filter (H) Figs. 18 and 19, can be replaced or cleaned depending on its condition. This filter can be cleaned in one of two methods: a shop-vac can be used to remove the dust, or compressed air can be used to blow the dust out of the filter.



Fig. 18

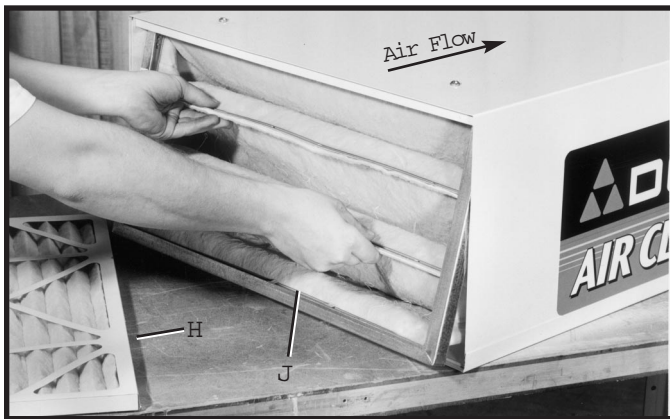


Fig. 19

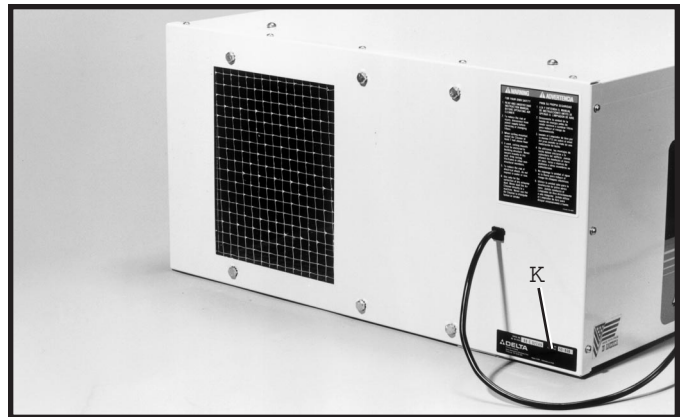


Fig. 20

WARNING: COMPRESSED AIR CAN BE DANGEROUS. FOR OPERATOR SAFETY, DO NOT EXCEED AN AIR PRESSURE OF 30 PSI OR POINT AIR NOZZLE TO WARD ANYONE OR AIM AIR NOZZLE AT YOUR OWN BODY. ALWAYS WEAR SAFETY GLASSES AND DUST MASK WHEN PERFORMING THIS PROCEDURE.

4. The inner bag filter (J) Fig. 19, cannot be cleaned; it is disposable and must be replaced.
5. Install both filters in the reverse order in which they were removed. NOTE: Make certain the AIR FLOW ARROW on each filter is pointing inward toward the rear of the air cleaner, as illustrated in Fig. 19.

IDENTIFICATION PLATE LOCATION

The identification plate (K) Fig. 20, showing the serial number and model of the air cleaner, is located at the rear of the air cleaner, directly below power cord. Please write these numbers on the front cover of this manual for future reference.

ACCESSORIES

Fig. 21, illustrates the replacement air filters that are available from Delta.

PART NO.		DESCRIPTION
50-858	(H)	Disposable Pleated Filter (pre-filter)
50-859	(J)	3-pocket Internal Filter
50-857		Charcoal Filter (not shown)

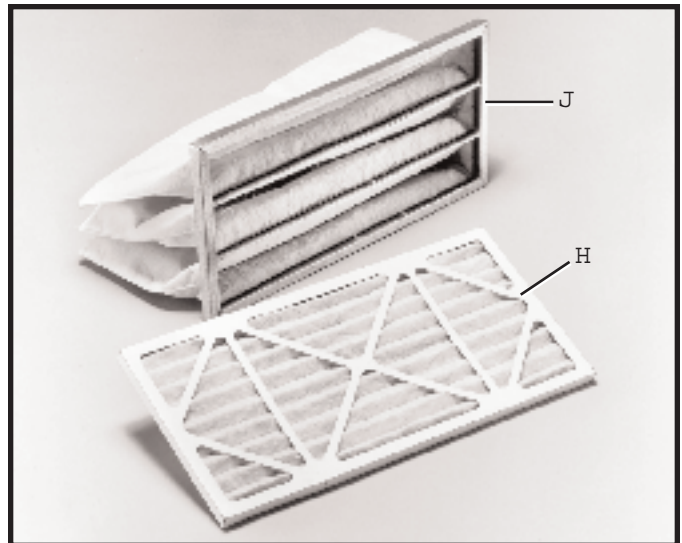


Fig. 21